

Abstract

An apparatus and method for performing non-invasive treatment of the human face and body by electroporation in lieu of cosmetic surgery is provided. The apparatus comprises a high voltage pulse generator and an applicator having two or more electrodes in close mechanical and electrical contact with the patient's skin for applying the pulses to the patient's skin. The applicator may consist of two pieces with one electrode having a sharp tip and another having a flat surface. High voltage pulses delivered to the electrodes create at the tip of the sharp electrode an electric field high enough to cause death of relatively large subcutaneous fat cells by electroporation. Moving the electrode tip along the skin creates a line of necrotic subcutaneous fat cells, which later are metabolized by the body. Multiple applications of the electrode along predetermined lines on the face or neck create shrinkage of the skin and the subcutaneous fat volume underlying the treated area.